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JOEL KOHN Interim Executive Director

December 20, 1991

Mr. Frazer Lockhart U. S. Department of Energy Rocky Flats Plant Building 116 P. O. Box 928 Golden, Colorado 80402



RE: DRAFT FINAL, PHASE I RFI/RI WORK PLAN, SOLAR EVAPORATION PONDS (Operable Unit No. 4), U. S. DEPARTMENT OF ENERGY, ROCKY FLATS PLANT, NOVEMBER, 1991.

Dear Mr. Lockhart,

The Colorado Department of Health, Hazardous Materials and Waste Management Division (the Division) and the U. S. Environmental Protection Agency (EPA) have reviewed the subject document submitted by DOE and prime contractor, EG&G. Based on our review, the Division, as lead agency, is withholding approval pending resolution of remaining deficiencies.

The initial work plan submitted in June, 1990 was highly deficient and necessitated a major rewrite. Although the current work plan has been the subject of closer coordination between the respective DOE, EG&G, EPA and Division staffs, a number of specific issues remain and must be addressed before the Division will grant approval.

The current IAG Schedule calls for field activities at the Solar Ponds to commence on January 7, 1992. However, the work plan schedule, Figure 6-1, proposes that activities will commence on February 5, 1992. The Division advises that DOE use this additional time to respond to comments and revise the work plan. The Division and EPA agree to block out sufficient time the week of January 6th to meet with DOE and EG&G staff to resolve the issues.

If the work plan cannot be resubmitted and approved by February 5th, 1992, the Division will consider granting DOE requests to begin specific field investigation activities. Only those activities not specifically and directly impacted by the comments will be considered for approval. DOE should finalize the document

by submitting replacement pages, satisfactory to the Division, not later than February 28, 1992.

The most significant issues prompting the Division to withhold approval are summarized below. The Division's specific comments and are attached. EPA will submit comments directly to DOE.

- The Conceptual Model Flow Chart, Figure 2-30, is incomplete. Wind deposition of contaminated aerosols and soils to surface water is excluded. Pumping of Ground Water (and Vadose Water) both on and off-site is excluded. The Baseline Risk Assessment and the Environmental Evaluation sections reference use of the conceptual model.
- o Clarification on the number of boreholes to be "advanced deeper", or the process to determine the appropriate number, for the purpose of delineation of paleochannels and fracture sets must be incorporated. Specific methods for the delineation of fracture sets are unclear and may be insufficient.
- o The Data Quality Objectives as presented in Table 4.1 generally contain vague objectives, fail to provide quantities (number of holes, grid sizes, etc) and fail to discuss data quality (parameter types, i. e. TCL Metals). A summary table of these activities must be included in Section 7.
- c The plan for locating holes at liner cracks and within competent liner areas fails to acknowledge repairs and replacement of liners or the potential for lateral migration of contaminants beneath the liners.
- o The proposed "geographic approach" of Phase I activities, concurrent with sludge removal, is not demonstrated in respect to conclusion of field investigations by August 19, 1992. The Division questions whether the schedule of activities is realistic.
 - o The work plan first advocates vadose zone monitoring but later suggests that it will be included if "deemed appropriate". The Division expects vadose zone monitoring to be a component of the work plan.
 - o The Division questions the sensitivity of downhole geophysical tools as an effective means of measuring radionuclide contamination. Alternatives should be considered and, if appropriate, included in the plan.
 - o DOE has not demonstrated what data are available, or how data will be acquired, to model aquifer drawdown for the purpose of determining piezometer spacings.

If you have any questions concerning these comments, please contact Harlen Ainscough of my staff at 331-4977 or Arturo Duran of EPA at 294-1080.

Sincerely,

Gary W. Baughman

Unit Leader, Hazardous Waste Facilities Hazardous Materials and Waste Management Division

Attachments

cc:

Daniel S. Miller, AGO
Martin Hestmark, EPA
Arturo Duran, EPA
Brent Lewis, DOE
Paul Bunge, EG&G
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